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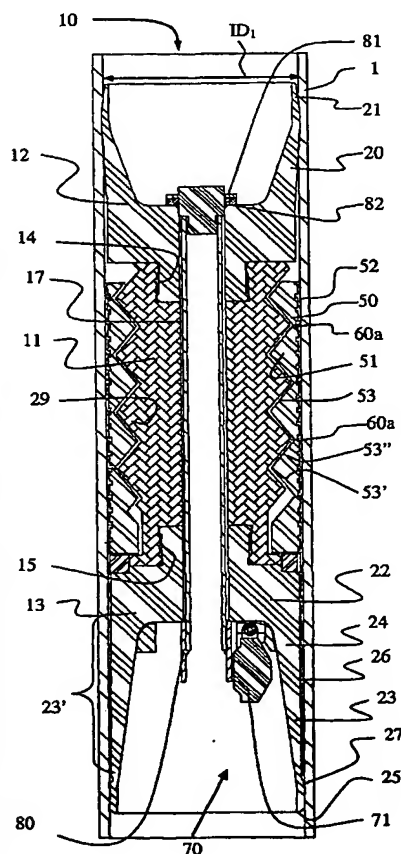
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UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.(71) Applicant (for all designated States except US): TESCO
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Alberta T2H 2B7 (CA).(84) Designated States (regional): ARIPO patent (BW, GH,
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(54) Title: ANCHORING DEVICE FOR A WELLBORE TOOL



(57) Abstract: An anchoring device for tool is disclosed that can be positioned down-hole and used in casing. The anchoring device can have an architecture that supports installation by running downhole and into engagement with a recess formed in the casing. The anchoring device can support the use of weak materials such as plastic.

INTERNATIONAL SEARCH REPORT

International Application No

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A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 E21B21/10 E21B23/01 E21B23/02 E21B23/08

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 01/94739 A (VERT JEFFERY WALTER ;ANGMAN PER G (CA); TESCO CORP (CA)) 13 December 2001 (2001-12-13) cited in the application the whole document ---	1,10
A	SHEPARD S F ET AL: "Casing Drilling: An Emerging Technology" PROCEEDINGS SPE/IADC DRILLING CONFERENCE, XX, XX, no. 67731, 27 February 2001 (2001-02-27), pages 1-13, XP002177809 page 11, column 2, paragraph 1; figure 17 ---	1,10
A	US 5 058 671 A (COCHRAN CHUDLEIGH B) 22 October 1991 (1991-10-22) column 1, line 10-15 --- -/--	1,10

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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- *&* document member of the same patent family

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 058 672 A (COCHRAN CHUDLEIGH B) 22 October 1991 (1991-10-22) figure 3 ---	1,10
A	US 5 323 858 A (JONES RICHARD R ET AL) 28 June 1994 (1994-06-28) column 3, line 46-57 figure 2 ---	1,10
A	US 4 413 682 A (CALLIHAN RUDY B ET AL) 8 November 1983 (1983-11-08) abstract ---	1,10
A	US 3 159 219 A (SCOTT LYLE B) 1 December 1964 (1964-12-01) the whole document -----	1,10

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/CA 03/01889

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0194739	A	13-12-2001	CA 2311160 A1 AU 6716901 A WO 0194739 A1 EP 1297241 A1 NO 20025863 A US 2004060700 A1	09-12-2001 17-12-2001 13-12-2001 02-04-2003 03-02-2003 01-04-2004
US 5058671	A	22-10-1991	NONE	
US 5058672	A	22-10-1991	NONE	
US 5323858	A	28-06-1994	CA 2128337 A1 DE 69330872 D1 EP 0620892 A1 NO 942664 A WO 9411610 A1	26-05-1994 08-11-2001 26-10-1994 16-09-1994 26-05-1994
US 4413682	A	08-11-1983	NONE	
US 3159219	A	01-12-1964	FR 1224584 A GB 846698 A	24-06-1960 31-08-1960